

WHAT IS CLAIMED IS:

1. In combination, a container neck and a container closure,
said neck having an upper opening, a downward extending neck stretch portion below said opening,
said neck stretch portion having an exterior, at least one first helical engagement means around said exterior of
said neck stretch portion, said at least one first helical engagement means having a lower surface, a locking wall
portion below said neck stretch portion, at least one first tooth on said locking wall portion,
said closure having a top, said top having an underside, a hollow plug disposed centrally of said
underside of said top dimensioned to fit inside said upper opening, a downward extending upper skirt portion
depending from said top, said upper skirt portion having an interior, at least one second helical engagement
means around said interior of said upper skirt portion shaped to mate with said at least one first helical
engagement means, said at least one second helical engagement means having an upper surface, a lower skirt
portion below said upper skirt portion, frangible means joining said upper and lower skirt portions together, at
least one second tooth on said lower skirt portion shaped to engage said at least one first tooth to prevent
unscrewing of said closure relative to said neck without breaking said frangible means,
said at least one first and second helical engagement means being shaped to slip over each other upon
direct axial downward movement of said closure on said neck without relative rotation of said closure and said
neck and then to interengage,
said plug having a contact point located on said plug where said plug first engages said neck opening
when said closure is applied to said neck,
said contact point and said upper surface of said at least one second helical engagement means being
separated by a maximum vertical distance, a top of said neck opening and said lower surface of said at least one
first helical engagement means being separated by a minimum vertical distance, said maximum vertical distance
between said contact point and said upper surface of said at least one second helical engagement means is
greater than said minimum vertical distance between said top of said neck opening and said lower surface of
said at least one first helical engagement means, thereby ensuring engagement of said at least one first and
second helical engagement means prior to contact between said plug and said neck opening.
2. The combination of Claim 1 which further comprises means to remove said lower skirt portion
from said closure, said means to remove said lower skirt portion comprising a tear tab connected to said lower
skirt portion.
3. The combination of Claim 1 in which said lower skirt portion is formed with a line of
weakness extending through said lower skirt portion.
4. The combination of Claim 3 in which said line of weakness is a vertical scoreline.
5. The combination of Claim 1 in which said frangible means comprises a plurality of spaced
bridges.

6. The combination of Claim 1 in which said at least one first and second helical engagement means are multilead, whereby said closure tends to rest horizontally on said neck prior to said downward movement.

7. In combination, a container neck and a container closure,
said neck having an upper opening, a downward extending neck stretch portion below said opening, said neck stretch portion having an exterior, at least one first helical engagement means around said exterior of said neck stretch portion, a locking wall portion below said neck stretch portion, at least one first tooth on said locking wall portion,

said closure having a top, said top having an underside, a hollow plug disposed centrally of said underside of said top dimensioned to fit inside said neck opening, a downward extending upper skirt portion depending from said top, said upper skirt portion having an interior, at least one second helical engagement means around said interior of said upper skirt portion shaped to make with said at least one first helical engagement means, a lower skirt portion below said upper skirt portion, frangible means joining said upper and lower skirt portions together, at least one second tooth on said lower skirt portion shaped to engage said at least one first tooth to prevent unscrewing of said closure relative to said neck without breaking said frangible means,

said at least one first and second helical engagement means being shaped to slip over each other upon direct axial downward movement of said closure on said neck without relative rotation of said closure and said neck and then to interengage,

said closure being formed with an internal shoulder at the intersection of said underside of said top and said interior of said upper skirt portion, said shoulder engaging said neck stretch portion.

8. In combination, a container having a neck and a container closure,
said neck having an upper opening, a lip surrounding said opening, a downward extending neck stretch below said lip, said neck stretch having an exterior, multiple neck helical engagement means on said exterior of said neck stretch, a locking wall below said neck stretch, and a plurality of external teeth on said locking wall,

said closure having a top, a downward extending upper skirt depending from said top adapted to fit over said neck stretch, said upper skirt having an interior, multiple closure helical engagement means on said interior of said upper skirt shaped to engage said neck helical engagement means, a tamper-evidencing band frangibly attached to said upper skirt, a plurality of internal teeth on said tamper-evidencing band interengaging said external teeth to prevent unscrewing of said closure from said neck so long as said tamper-evidencing band is intact,

said neck and closure helical engagement means being shaped and said closure being resilient so that upon application of force to accomplish direct, axial movement of said closure relative to said container without externally imposed relative rotation of said closure and said neck, said neck and closure helical engagement means slip past each other and then interengage and said closure seats on said neck so that said closure cannot be removed from said neck without unscrewing said closure,

said external teeth having a bevel slanted downwardly and outwardly from said locking wall, said bevel guiding said internal teeth and said external teeth into side-by-side interengagement upon contact between at least one of said internal teeth and said bevel of at least one of said external teeth during said direct, axial movement of said closure relative to said neck.